

# 2<sup>nd</sup> Indoor Air Sampling Request

For Homes in the Following Areas: Brea, Carmel, East Duane (700s), San Juan (600s), San Jule, San Justo, San Luisito, San Miguel (600s)

U.S. Environmental Protection Agency Region 9 San Francisco, June 2015

Philips, AMD 901-902 Thompson Place, TRW Microwave Superfund Sites ("Triple Site"), Sunnyvale, California

The U.S. Environmental Protection Agency (EPA) is again requesting permission from certain residents in the Duane/San Miguel Avenue neighborhood to collect indoor air samples. This sampling is part of a study of the potential for vapor intrusion (a process where vapors from groundwater contamination may migrate into indoor air). EPA conducted a first round of sampling this past winter but most of the residences on the northern side of Duane Avenue (between San Juan and San Miguel, north to Brea and Carmel) did not sign up for sampling. During the first round of testing, EPA found evidence that vapor intrusion was occurring in some buildings on the south side of Duane Avenue. Based on the first round of sampling, EPA is recommending testing in all homes in the area. There is no cost to owners or tenants selected for this testing. To sign up for the sampling, please contact Melanie Morash, the EPA Project Manager, at (415) 972-3050 or by e-mail to morash.melanie@epa.gov

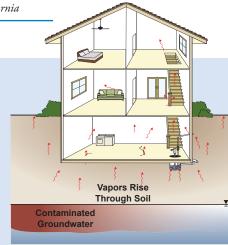


Figure 1: Vapor intrusion into a residence

#### **TCE and Vapor Intrusion**

The main chemical of concern in this investigation is trichloroethene (TCE). TCE is a type of volatile organic chemical (VOC) which can move as vapors from groundwater through soil under certain conditions. If vapors move under a building it is possible for them to pass through cracks and other openings in the foundation and enter the indoor air (See Figure 1). If this happens, and if the levels of VOCs are high enough and prolonged enough, it may create a health risk.

TCE is present in the groundwater due to historical semiconductor and other electronics manufacturing operations from the early years of Silicon Valley (dating back to the 1960s). Since the 1980s, the parties responsible for the environmental cleanup have been conducting activities to contain and clean up TCE in the shallow groundwater.



Note: Your drinking water does not come from groundwater in this area. Neighborhood drinking water comes from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains and meets all state and federal drinking water standards.

#### What Was Done Prior to 2015?

Annual indoor air sampling has been conducted for 10 years at the Montessori school buildings on Duane Avenue because these buildings are over the highest concentration in groundwater. Results from this testing showed that levels of TCE are very low, and protective of children's health.

# Why Sample Again?

This past year EPA strengthened its protective levels for TCE, due to new information about potential cancer and other health risks related to TCE exposure.

EPA has also learned more about how vapor intrusion can vary throughout the year, with the highest potential during winter, when homes and classrooms are more tightly sealed and vapors may build up. In addition, EPA has developed a more comprehensive testing approach.

## Results of School Sampling

The good news is that the majority of samples showed very low concentrations which do not pose a health risk, and we acted quickly to respond to one Duane Avenue school sample (from an auditorium) that was elevated – promptly lowering the levels by fixing the ventilation system. EPA believes that there was not a significant exposure to students or teachers because the auditorium was used infrequently and when it was used, for only short periods of time.

EPA sent letters home with all of the school children and met with parents to share the sampling results, answer questions, and outline EPA's plans for a permanent, mitigation system at the affected school building. In the meantime, additional sampling continues at all of the neighborhood schools to evaluate whether additional mitigation systems would be appropriate to further reduce risk.

# Results of Home Sampling

During the first round of neighborhood indoor air sampling in January-March 2015, 54 households (out of 414 total) were sampled. The majority of households showed no evidence of vapor intrusion, having levels similar to outdoor air (which has low concentrations of TCE typical of an urban neighborhood in the South Bay). Three households had levels of TCE that were slightly elevated, though still meeting EPA's health protection goals. EPA plans to re-sample these households in June, and is recommending 2nd round winter testing at all households in the neighborhood Dec 2015 - Feb 2016.

#### The "Triple Site"

Informally known by the collective term "Triple Site", the site includes three groundwater TCE sites – the Advanced Micro Devices 901/902 Thompson Place Superfund Site (AMD 901/902 Site), the Philips (formerly Signetics) Site (Philips Site), and the TRW Microwave Superfund Site (TRW Site).

The Triple Site also includes the area of the neighborhood outside these facilities' property boundaries, which has been impacted by TCE-containing groundwater from the three source sites. This area includes the neighborhood around Duane/San Miguel Avenue to just past Highway 101 to the north (Lakehaven Drive), and between the Sunnyvale East Drainage Channel on the west and San Miguel Avenue on the east (see map). Concentrations of TCE in the shallow groundwater in this part of the neighborhood are elevated above the acceptable level of 5 micrograms per liter (ug/L).

### **What Happens Next**

EPA is looking to sample homes within the entire sampling area shown, and residents can call anytime to sign up for sampling. EPA is particularly interested in testing those residences on the north side of Duane (the 700 block), and those households between the 600 blocks of San Juan and San Miguel, to Carmel and Brea. This area also includes the residences on San Jule, San Justo, and San Luisito. To sign up for the sampling, please call (or e-mail) and leave a message with your name, telephone number, mailing address and/or e-mail address and the best time to reach you.

With residents' permission, two rounds of sampling will be conducted — one this spring and one during this coming winter. Households that were sampled during our first sampling round this past winter will be sampled again the following winter, with the exception of the three households with slightly elevated levels of TCE that are being evaluated further this month. The process for testing for TCE in indoor air is not disruptive, and simply involves placing a small sampling device in the home (for example, on a shelf or counter) and in the crawlspace beneath the home over a 24-hour to 2-week period. During the testing, residents should avoid using certain chemicals which can interfere with the testing (such as on dry-cleaned clothing, paints, or carpet cleaners). EPA will notify each resident individually of the results within a few weeks after the testing. If a vapor intrusion issue is found, there will be no cost to residents or property owners to put in place a solution. EPA will also distribute another fact sheet to the neighborhood in late 2015 with an update on the investigation and next steps for the community.

# **Figure 2:** Indoor air sampling area. Approximate extent of TCE contamination above 5 micrograms per liter (µg/L) in shallow groundwater (around 10 ft).

# Who Do I Contact If I Would Like My Home Sampled?

Please contact any of the following if you would like your home sampled:

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Visit EPA's website for more information on the Triple Site: www.epa.gov/region9/triplesite

